

ACCESS TO FIELD



LANDSCAPING MANAGEMENT PLAN

A commissioning period is required to cover the initial plant establishment period this is the liability of the contractor after which any maintenance procedure liability will be that of the client.

All planting and maintenance shall be carried out as per 'Good Horticultural practice' and 'British Standard' with particular reference to:
 BS 3998: Recommendations for tree work
 BS 8545 Trees: from Nursery to independent in landscape
 BS 4428: Code of practice for general landscape operations
 BS 7370: Grounds maintenance

The time that trees and plants are held in temporary storage should be kept to a minimum. The storage area should be specific for that purpose.
 All plants will be of UK provenance.

PLANTING

GROUND PREPARATION

- Planting areas should be identified and marked out so that clearly designated areas in compliance with the approved planting plan are created.
- Ground preparation shall ensure sufficient topsoil is in place.
- Planting works shall be carried out during appropriate ground and weather conditions for works being undertaken.
- Following planting ensure watering and weed control is maintained

WETLAND PLANTING

- Wetland plants will be planted in a density of 6 plants/m².
- Plant species will be planted in similar species groups/clusters.
- Planting will be carried out manually.
- Suitable source of water for preparing cells for planting will be confirmed in advance.
- Soils to be saturated prior to planting with no greater than 100mm of water.
- Following planting water depths to be maintained at 50-100mm.
- Subject to time of year, water level management shall be reviewed weekly/monthly.
- For species list and number please refer to Table 1.

TREES AND HEDGES / SHRUBS

- Hedges / shrubs to be planted along fencing (see drawing for location) in 2 rows 450mm apart with plants spaced at staggered 450mm spacing.
- Mulch the whole surface of planting beds with bark mulch in accordance with the specification and suppliers' instructions.
- Tree locations as indicated on drawing and carried out to BS standards as listed above.
- Tree guards using biodegradable material to be included for protection.
- For species list and number please refer to Table 2, 3 and Table 4.

GRASS AND WILDFLOWER

- Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture.
- The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roller, or by treading, to give good soil/seed contact.
- For species list please refer to Table 5 and Table 6.

MAINTENANCE REQUIREMENTS

WETLAND AREAS

- Water level management within the wetland cells for plant establishment.
- Water levels shall be kept optimal to allow for species establishment and efficiency of the ICW system (operational 150-200mm).
- Pulling back of vegetation from inlet and outlet pipe areas and dispose on embankments away from pipes.
- Monitoring and access points to be kept clear of vegetation.
- Overtime (15-20 yrs.) desludging and replanting.
- As required remove unwanted species, e.g. willow, under best practice.
- Ensure unwanted or invasive plant species do not establish in cells.

TREES

- Pruning shall be carried out as necessary to establish a well-balanced head relative to the natural form and shape of the species and purpose.
- Remove any dead, dying and damaged branches or growth obstructing pedestrian or vehicular routes.
- Tree support systems, ties and protective guards shall be checked regularly during establishment and adjusted where necessary. Any broken or missing items shall be replaced, and ties adjusted to allow growth and prevent rubbing of bark. Remove as soon as practical.
- Maintain a weed free area at the base of all trees.
- Watering of trees shall be carried out (if necessary) weekly, immediately following planting. Watering frequency shall be assessed subject to season and requirements.

HEDGEROW / SHRUB

- Planting to be maintained to encourage vigorous growth according to species habit
- Species planting blocks to be maintained to encourage substantial coverage and interlocking with adjacent species to avoid bare patches and discourage weed growth.
- Maintenance requirements including pruning shall be required to be tailored to the individual species. Remove any dead, dying and damaged growth or growth obstructing vehicular routes outside of bird breeding season (March to August inclusive).
- Check condition of guards and shelters and replace broken or missing items until such a time as they become redundant. Adjust if necessary to allow for growth and prevent damage to bark. Remove as soon as practical. Re-firm any plants that have been disturbed by adverse weather or interference.
- Maintain a weed free area at the base of all trees and hedges, with approved mulch.
- Hedge trimming/cutting is recommended once annually, on only one side of the hedge. This can be alternated from year to year.

GRASS AND WILDFLOWER AREAS

- Mow long grass areas on an annual basis in September-October and to a minimum height of 10cm. Removal of all arising which would be stacked in scrub areas with no ground flora as habitat piles. Remove litter, rubbish and other debris from areas prior to cutting.
- Exercise extreme care when working in close proximity to existing/new trees and prevent damage to stems/trunks.

REPLACEMENT OF DAMAGED / DEAD PLANTS

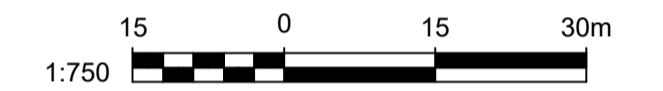
Routine inspection and management, as part of the operation and management of the site shall identify where 'any planting removed, dying or becoming seriously damaged or diseased within 5 years of planting shall be replaced within the first planting season thereafter with planting of similar size and species unless the local planning authority gives written consent for any variation'.

NOTES

- PLEASE REFER TO LANDSCAPE MANAGEMENT PLAN FOR FURTHER INFORMATION.
- THERE MIGHT BE SOME VARIATIONS OF THE WETLAND PLANTS NUMBER AND SIZES SUBJECT TO AVAILABILITY.
- DRAWING TO BE READ IN CONJUNCTION WITH ASSOCIATED DESIGN DOCUMENTS.

LEGEND

- OWNERSHIP BOUNDARY
- PLANNING APPLICATION BOUNDARY
- ELEVATION CONTOURS (0.5m INTERVALS)
- EXISTING FENCE
- EXISTING TREE / HEDGE
- RISING MAIN (TBC BY GTB)
- PIPEWORK
- STOCKPROOF FENCE
- PROPOSED MANHOLE
- NATIVE TREES
- NATIVE HEDGE / SHRUB
- WETLAND PLANTING
- GRASSED EMBANKMENTS
- EMBANKMENTS PLANTED WITH THE MIX OF 80% GRASSES AND 20% WILDFLOWERS
- FLOOD MITIGATION WETLAND PLANTING
- PROPOSED MAINTENANCE ACCESS ROAD (MINIMUM 3.5m WIDTH)
- PROPOSED VEHICULAR ACCESS



CURRENT VERSION INFORMATION

Initial Status or WIP
 XXXXXX.

DATE	ORIG	CHKD	REVD	APPR	REV	STS	REASON FOR ISSUE
06/02/24	JF	AC	AC	AC	C02	A5	SUITABLE FOR CONSTRUCTION
29/01/24	JF	AC	AC	AC	C01	A5	SUITABLE FOR CONSTRUCTION
24/11/23	JF	AC	AC	AC	P02	S3	REVIEW AND COMMENT
19/10/23	JF	AC	AC	AC	P01	S3	REVIEW AND COMMENT

Table 1: Wetland planting - species and numbers

Wetland Planting [12889m ²]		% cover	Cell 1 [m ²]	Cell 2 [m ²]	Cell 3 [m ²]	Cell 4 [m ²]	F.M. Area [m ²]	Total plant number
Common name	Botanical name		487	5399	4418	2585	930	
Emergent wetland plant species								
Lesser pond sedge	Carex acutiformis	25	731	8099	6627	3878	1395	20730
Reed Sweet Grass	Glyceria maxima	30	877	9718	7952	4653	1674	24874
Lesser reedmace	Typha angustifolia	20	584	6479	5302	3102	1116	16583
Greater reedmace	Typha latifolia	15	438	4859	3976	2327	837	12437
Marginal wetland plant species								
Yellow flag	Iris pseudacorus	2	58	648	530	310	112	1658
Water mint	Mentha aquatica	1	29	324	265	155	56	829
Purple loosestrife	Lythrum salicaria	1	29	324	265	155	56	829
Brooklime	Veronica beccabunga	1	29	324	265	155	56	829
Gipsywort	Lycopus europaeus	1	29	324	265	155	56	829
Marsh cinquefoil	Potentilla palustris	1	29	324	265	155	56	829
Marsh marigold	Caltha palustris	1	29	324	265	155	56	829
Meadowsweet	Filipendula ulmaria	1	29	324	265	155	56	829
Water forget-me-not	Myosotis scorpioides	1	29	324	265	155	56	829
Total plant number / cell			2920	32395	26507	15510	5582	82914

Table 2: Tree planting - species and numbers

Common Name	Botanical name	Tree number	Size [trunk girth]
Birch	Betula pendula	8	8-10cm
Rowan	Sorbus acupararia	8	8-10cm
Field Maple	Acer campestre	8	8-10cm
Total tree number		24	

Table 3: Hedgerow planting - species and numbers

Hedgerow [180 m]				
Common Name	Botanical name	% cover	Plant number	Size
Hawthorn	Crataegus monogyna	60	432	Height 60-80cm;
Blackthorn	Prunus spinosa	25	180	Winter planting;
Field Maple	Acer campestre	5	36	bare root stock;
Dogwood	Cornus sanguinea	5	36	April-September
Dogrose	Rosa canina	5	36	planting; root
Total plant number			100	720

Table 4: Shrubs planting - species and numbers

Common Name	Botanical name	Plant number	Size
Hawthorn	Crataegus monogyna	5	Height 60-80cm;
Blackthorn	Prunus spinosa	5	Winter planting;
Field Maple	Acer campestre	5	bare root stock;
Dogwood	Cornus sanguinea	5	April-September
Dogrose	Rosa canina	5	planting; root
Total plant number		25	trainer stock

Table 5: Grass - species mix and cover

Surrounding grass areas planting [11558 m ²]	% cover
Crested Dogs Tail	15%
Strong Creeping Red Fescue	30%
Slender Creeping Red Fescue	15%
Sheeps Fescue	10%
Smooth Stalked Meadow Grass	20%
White Clover	10%

Table 6: Grass and Wildflower [1550m²] - species mix and cover

Grasses	% cover
Crested Dogs Tail	15%
Strong Creeping Red Fescue	20%
Slender Creeping Red Fescue	15%
Sheeps Fescue	10%
Smooth Stalked Meadow Grass	10%
White Clover	10%
Wildflowers	
Yarrow	0.90%
Greater Knapweed	1.60%
Common Mouse-ear (annual species and may not persist in a mature grassland sward)	0.50%
Rough Hawkbit	0.80%
Oxeye Daisy	1.60%
Birds Foot Trefoil	1.40%
Cowslip	0.80%
Yellow Rattle	2.20%
Salad Burnet	1.80%
Black Knapweed	1.70%
Wild Carrot	0.90%
Kidney Vetch (prefers chalk soils)	1.30%
Horseshoe Vetch (prefers chalk soils)	0.80%
Field Scabious	1.70%
Vipers Bugloss	1.20%
Devils Bit Scabious (prefers damp acidic soils)	0.80%

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MESI ENVIRONMENTAL
 SOLUTIONS BY NATURE
 integrating our water back into nature

PROJECT TITLE
STAPLEFIELD WTW

DRAWING TITLE
LANDSCAPE PLAN

SITE UNIT MNEMONIC	STPFIELD	SITE UNIT NO.	101464	MASTER SIZE	A1
PRN	752214	SCALE	1:750	STATUS	A5
S.W. DRAWING NO.	752214-UAX-ZZ-DR-EN-00007			REVISION	C02